WASHINGTON STATE DEPARTMENT OF HEALTH
OFFICE OF FOOD SAFETY AND SHELLFISH PROGRAMS

ANNUAL GROWING AREA REVIEW

PREPARED BY: Donald Melvin, Environmental Specialist

AREA: Eld Inlet

YEAR ENDING: December 31, 2005

CLASSIFICATION: Approved, Unclassified

ACTIVITIES IN THE GROWING AREA IN 2005:

Samples were collected from each station in the growing area 6 times during the year using the systematic random sampling method. Shellfish were relayed to Eld Inlet from the Restricted area of Hammersley Inlet. Small closure zones, located at points A, B, C, and D shown on the area map, are still in effect. The closure zones were established due to high bacteria levels detected in water samples collected from small beach drainages during the course of the 2004 shoreline survey. None of the closure zones involve active commercial shellfish beds

ANALYTICAL RESULTS OF WATER SAMPLES:

Table #1 summarizes the results of all samples collected from the area. This summary shows that all stations in the area pass the NSSP water quality standard. Station number 160 has a 90^{th} percentile of 37 and is considered threatened. Stations #161, #163, #166, and #174 are listed as of concern due to elevated bacteria levels. Individual sample results for station #160 are shown in Table 2

CHANGE IN ACTUAL POLLUTION SOURCES THAT IMPACT THE GROWING AREA:

We currently have no information indicating that the area has new sources of pollution.

CLASSIFICATION STATUS:

☐ Well within the classification standards
☐ Meets standards but some concerns
☒ Meets standards but threatened with a downgrade in classification
☐ Fails to meet classification standards

REMARKS AND RECOMMENDATIONS:

Table #1 shows that all stations meet the NSSP water quality standards for approved classification and the area is correctly classified. Perry and McLane creeks are on the 303D list for fecal coliform.

TABLE 1

SUMMARY OF MARINE WATER DATA (SRS)

Growing Area: **ELD INLET**

Classification: **Approved,Unclassified**

From **12/11/2000** To **12/06/2005**

FECAL COLIFORM ORGANISMS/100 ML

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
160	Approved	31	1.7 - 130.0	7.4	37.0	Yes
161	Approved	31	1.7 - 49.0	5.6	27.0	Yes
162	Approved	31	1.7 - 49.0	4.4	16.0	Yes
163	Approved	31	1.7 - 49.0	5.2	21.0	Yes
164	Approved	31	1.7 - 49.0	4.5	17.0	Yes
165	Approved	31	1.7 - 79.0	3.3	11.0	Yes
166	Approved	31	1.7 - 49.0	5.3	20.0	Yes
167	Approved	31	1.7 - 23.0	2.9	7.0	Yes
168	Approved	31	1.7 - 23.0	2.5	5.0	Yes
169	Approved	31	1.7 - 31.0	3.1	8.0	Yes
170	Approved	31	1.7 - 49.0	3.0	9.0	Yes
171	Approved	31	1.7 - 70.0	3.9	16.0	Yes
172	Approved	31	1.7 - 130.0	3.2	14.0	Yes
173	Approved	30	1.7 - 23.0	2.9	8.0	Yes
174	Approved	31	1.7 - 1,600.0	3.4	24.0	Yes
175	Approved	31	1.7 - 13.0	2.1	4.0	Yes
176	Approved	32	1.7 - 170.0	2.9	13.0	Yes
177	Approved	31	1.7 - 11.0	1.9	3.0	Yes
178	Approved	31	1.7 - 240.0	2.6	9.0	Yes
179	Approved	31	1.7 - 79.0	3.8	16.0	Yes
180	Approved	31	1.7 - 7.8	1.9	3.0	Yes
181	Approved	31	1.7 - 7.8	1.9	3.0	Yes
182	Approved	31	1.7 - 22.0	2.4	5.0	Yes
159	Unclassified	27	1.7 - 79.0	7.7	43.0	*N/A

All tides information is presented

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100 ml and an estimate of the 90th percentile not greater than 43 organisms/100 ml. The above table shows bacteriological results in relation to program standards.

* N/A - SRS criteria require a minimum of 30 samples from each station. *

TABLE 2

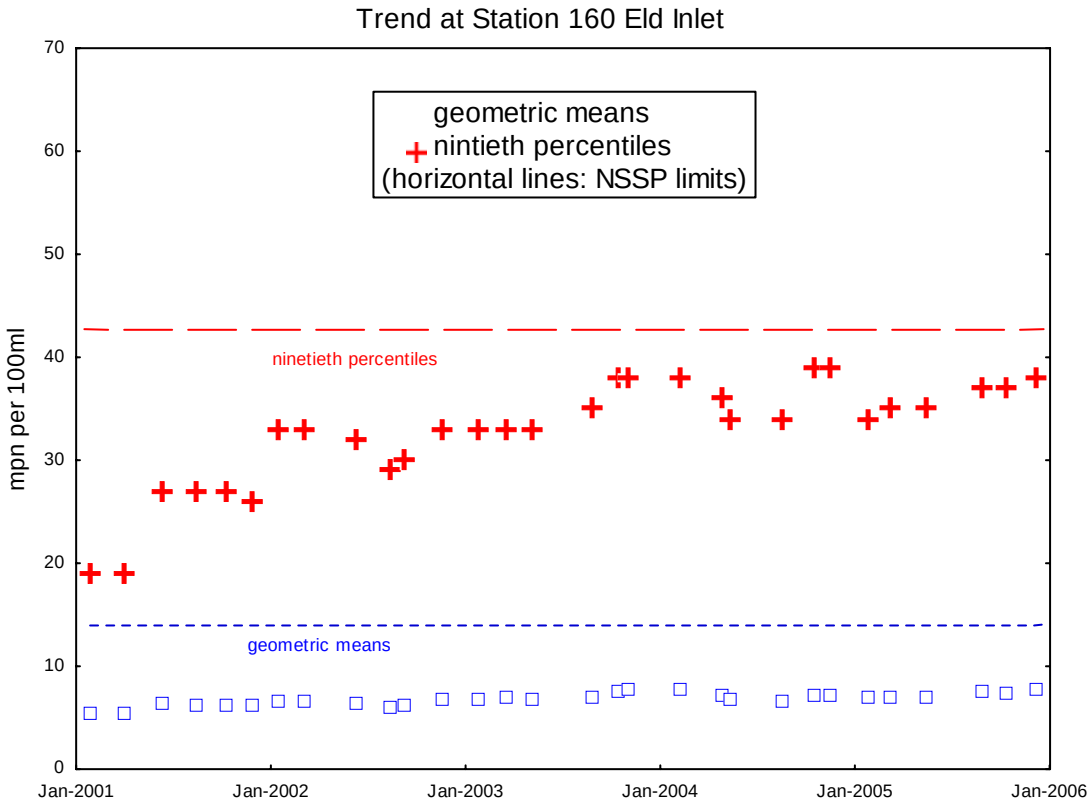
SUMMARY OF SHELLFISH GROWING AREAS
WATER QUALITY STUDY RESULTS

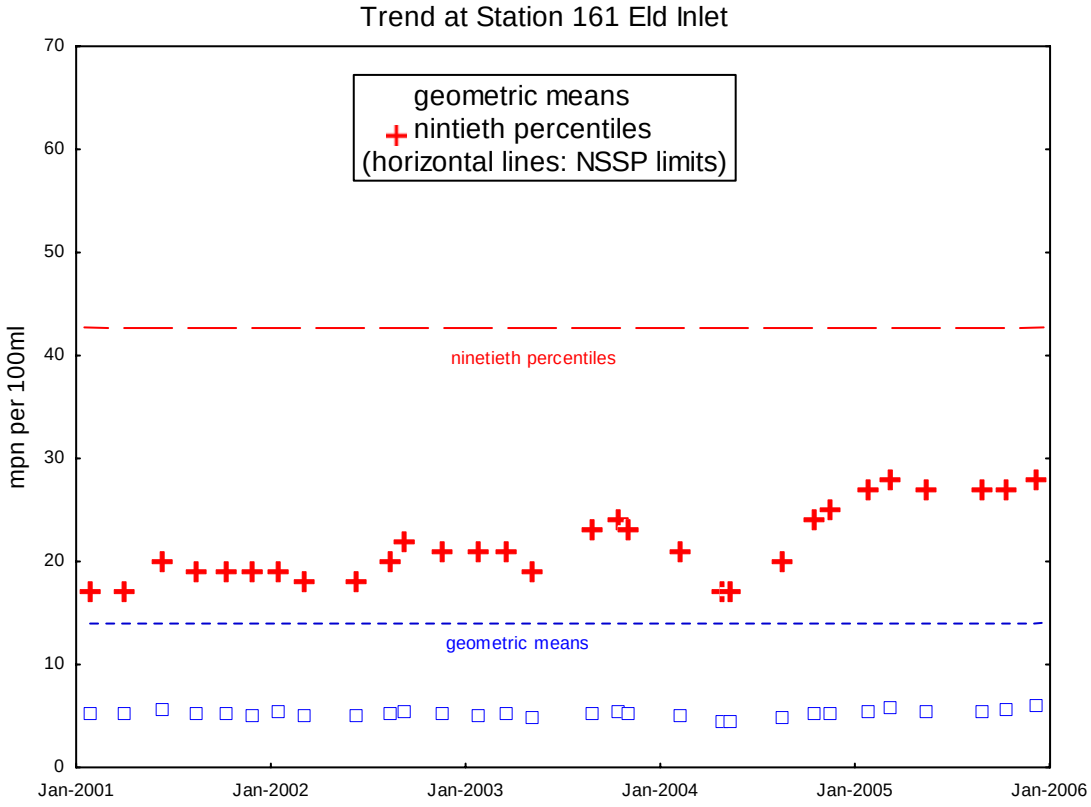
Growing Area: **ELD INLET**
Sampling Station Number: **160**
Classification: **Approved**

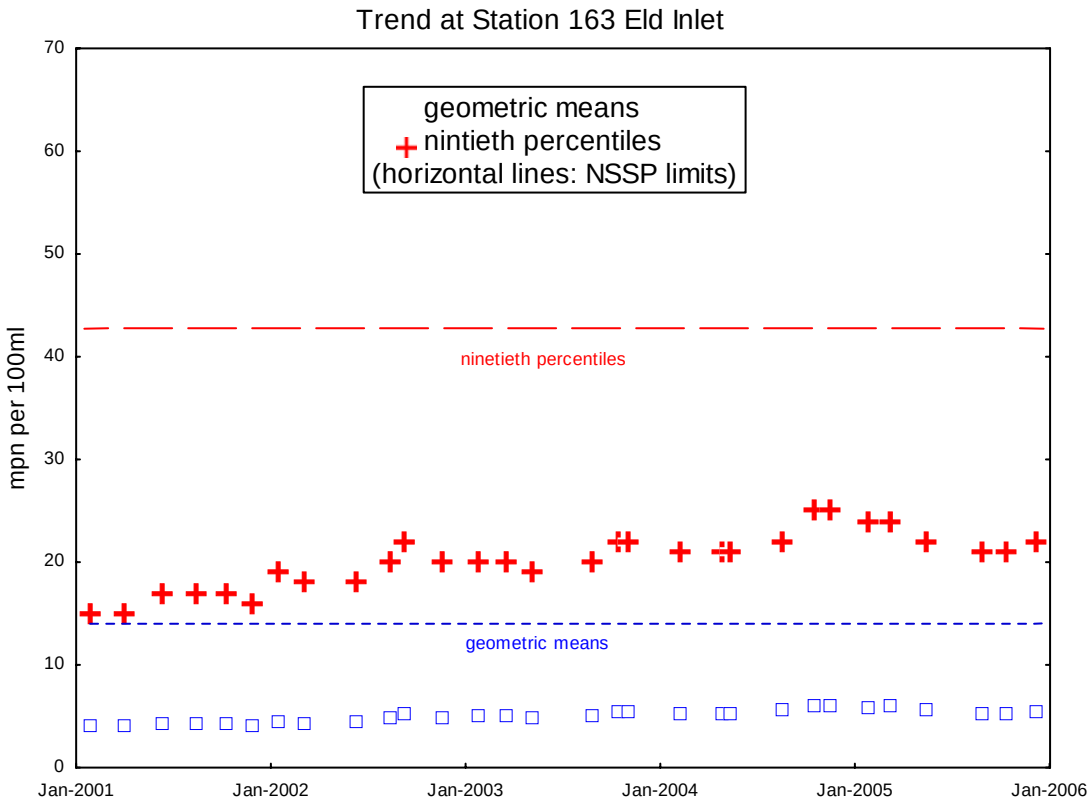
Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
12/11/2000	12:34	Flood	4.5	9	26
01/29/2001	10:31	Ebb	6.8	7	30
04/02/2001	12:49	Ebb	1.7	9	28
06/11/2001	12:02	Ebb	130	13	34
08/13/2001	13:16	Flood	1.7	17	32
10/08/2001	12:55	Ebb	4.5	14	32
11/26/2001	13:06	Flood	4.5	10	21
01/14/2002	12:12	Ebb	110	8	13
03/04/2002	12:21	Ebb	2	8	25
06/11/2002	10:46	Ebb	6.8	14	28
08/12/2002	13:07	Ebb	7.8	17	28
09/09/2002	12:06	Ebb	17	14	28
11/18/2002	13:00	Flood	23	10	28
01/27/2003	12:26	Flood	13	9	10
03/17/2003	10:55	Ebb	4.5	8	14
05/06/2003	09:23	Ebb	2	10	20
08/28/2003	09:17	Ebb	33	17	28
10/13/2003	13:07	Ebb	22	13	28
11/03/2003	13:45	Flood	4.5	9	30
02/09/2004	13:37	Ebb	1.7	7	21
04/26/2004	12:42	Ebb	1.7	15	26
05/11/2004	14:14	Ebb	2	13	28
08/19/2004	09:41	Ebb	1.7	19	30
10/18/2004	13:43	Ebb	49	13	28
11/15/2004	12:07	Ebb	17	10	26
01/24/2005	12:59	Flood	17	8	20
03/07/2005	09:03	Ebb	13	9	22
05/16/2005	13:53	Ebb	1.7	12	28
08/29/2005	14:41	Flood	17	17	30
10/10/2005	13:14	Flood	4.5	13	30
12/06/2005	14:25	Ebb	13	7	20

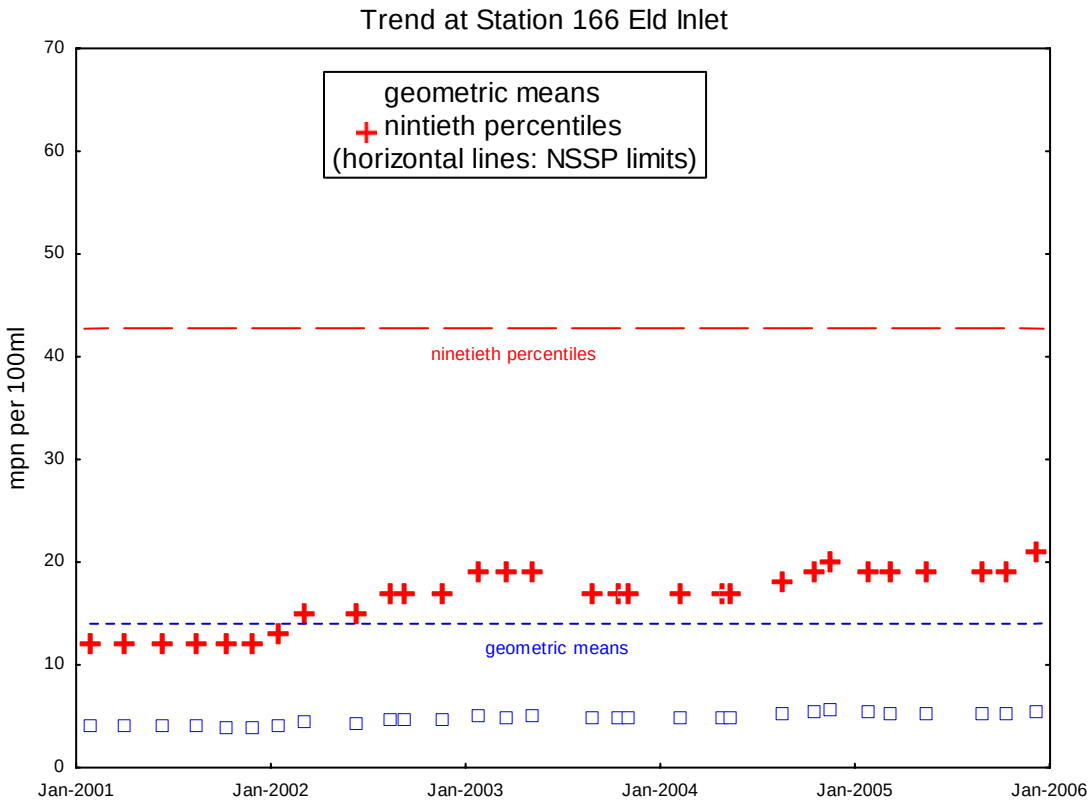
Number of Samples: 31
Range: 1.7 - 130
Geometric Mean: 7.4
Estimated 90th Percentile: 37

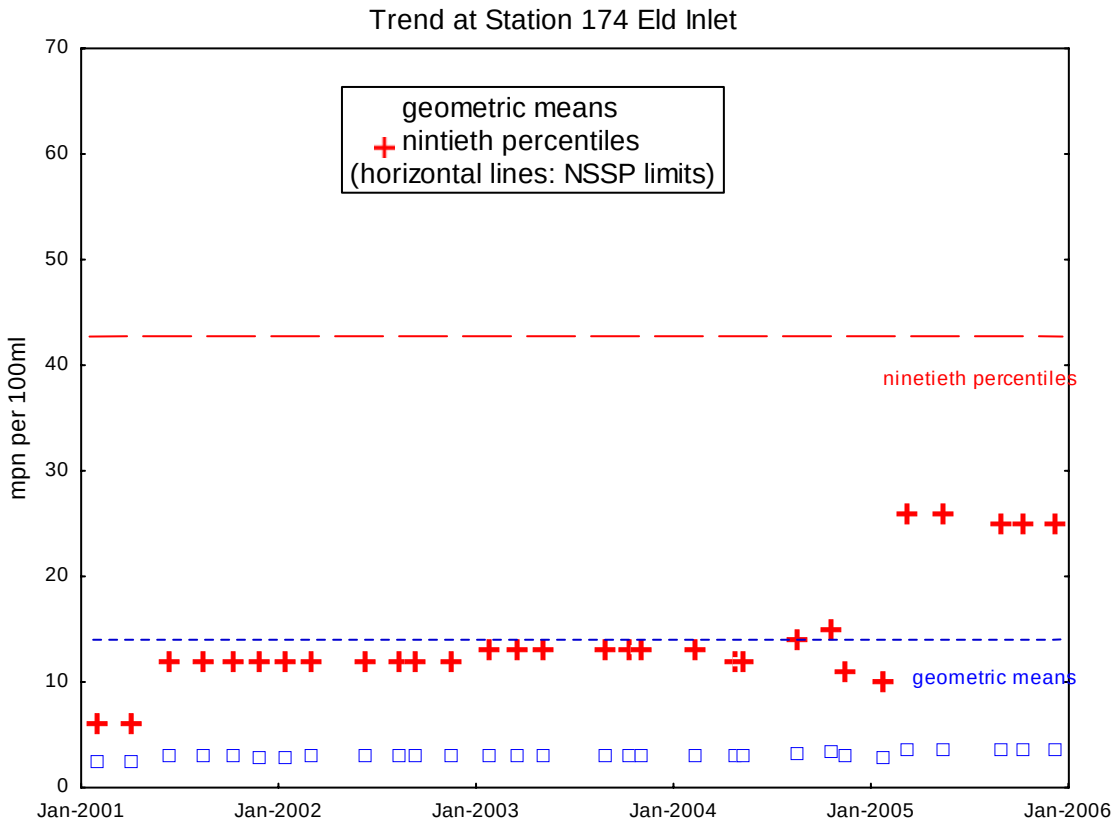
Most recent five-year trend in fecal coliform pollution.






Trend at Station 163 Eld Inlet
geometric means
nintieth percentiles
(horizontal lines: NSSP limits)
ninetieth percentiles
geometric means
mpn per 100ml
0
10
20
30
40
50
60
70
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006


Trend at Station 166 Eld Inlet
geometric means
nintieth percentiles
(horizontal lines: NSSP limits)
ninetieth percentiles
geometric means
mpn per 100ml
0
10
20
30
40
50
60
70
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006


Trend at Station 174 Eld Inlet
geometric means
nintieth percentiles
(horizontal lines: NSSP limits)
ninetieth percentiles
geometric means
mpn per 100ml
70
60
50
40
30
20
10
0
Jan-2001
Jan-2002
Jan-2003
Jan-2004
Jan-2005
Jan-2006